



THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Algebraic Geometry and Representation Theory Seminar

Room 208 ,Elaine and Bram Goldsmith Building
on Wednesday, Jan 06, 2016
at 11:15

PLEASE NOTE UNUSUAL ROOM

Shamgar Gurevitch
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Low Dimensional Representations of Finite Classical Groups

Abstract:

Finite group theorists have established many formulas that express interesting properties of a finite group in terms of sums of characters of the group. An obstacle to applying these formulas is lack of control over the dimensions of representations of the group. In particular, the representations of small dimension tend to contribute the largest terms to these sums, so a systematic knowledge of these small representations could lead to proofs of some of these facts. This talk will discuss a new method for systematically constructing the small representations of finite classical groups. I will explain the method with concrete examples and applications.

This is part from a joint project with Roger Howe (Yale).